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TRANSMITTAL OF APPEAL BRIEF (Small Entity)

Docket No.
887

In Re Application Of: Cynthia L. Cassel et al.



Serial No.
09/767,413

Filing Date
1/23/01

Examiner
T. Pham

Group Art Unit
2632

Invention: Combination Breathing Monitor Alarm and Audio Baby Alarm

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Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on: 9/14/01

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- ☐ is enclosed.
- ☒ has already been filed in this application.

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Signature

Dated: October 25, 2001

John D. Gugliotta, Esq.
Registration No. 36,538
137 South Main St., Suite 202
Akron, OH 44308
330-253-5678
330-253-6658 (facsimile)

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Terry Lakos

Typed or Printed Name of Person Mailing Correspondence

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BEFORE THE UNITED STATES PATENT AND TRADEMARK OFFICE
ON APPEAL TO THE BOARD OF APPEALS

#2
[Signature]
1-31-02

In re Application of: Cynthia Cassel)
Robert Cassel, Jr.)
Serial No.: 09/767,413)
Filed: 01/23/01)
Title: Combination Breathing Monitor)
Alarm And Audio Baby Alarm)

Date: October 11, 2001
Group Art Unit: 2632
Examiner: Toan Pham

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CERTIFICATE OF SERVICE

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Terry Lakos 10/25/01
Name: *TERRY LAKOS* Date

BRIEF ON APPEAL

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

This is an appeal from the Final Rejection, dated June 14, 2001 for the above identified application.

REAL PARTY IN INTEREST

The party(ies) named in the caption of this brief are the real parties of interest in this appeal.

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RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to appellant, appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATEMENT OF AMENDMENTS

There have been no supplemental amendments filed after final rejection.

SUMMARY OF INVENTION

The present invention is a combination breathing monitor alarm and audio baby alarm which includes an attachable transmitter in combination with a receiver. The transmitter forms a main body of a linearly elongated, pliable chest strap having hook and loop fastener means supported at each linear end. It is anticipated that the chest strap would be soft and formable, and easily wrapable about the chest of an infant in a manner that would be safe and comfortable. In this manner, the hook and loop fastener means can allow for the chest strap to be connected in a manner circumscribing the wearers chest. The chest strap has a flat, smooth inner surface supporting a first resonant sensor spaced laterally apart from a second resonant sensor. A microphone is further housed in the chest strap, and communicates with transmitter control circuitry housed therein, whose function will be described in greater detail below. Further, a battery housing for securely storing batteries in a removable manner is provided within the chest strap for providing portable electrical power for

powering the transmitter control circuitry.

A receiver is provided housing receiver control circuitry, as will be described in greater detail below, for receiving signals transmitted by the transmitter. It is anticipated that the receiver will be used physically remotely from the transmitter, and would thereby be in wireless radio communication with the transmitter. It is further anticipated that a lighting means, shown herein as an incandescent illumination panel, would provide the functionality of a conventional "night-light" as well.

The transmitter control circuitry has a transmitter control central processing unit including a conventional radio frequency transmitter communicating with an antenna and controlled by a conventional analog to digital microphone amplification circuit in communication with a microphone. An on/off switch controls the input of electrical power to both circuits. A receiver control central processing unit including a conventional radio frequency receiver communicating with an antenna and controlled by a conventional digital to analog speaker amplification circuit in communication with a speaker. An on/off switch controls the input of electrical power to both circuits.

The transmitter further incorporates a respiration monitor for monitoring the respiration of the user as well as interacting with the transmitter control circuitry for transmitting a respiration alarm signal. The first resonant sensor and second resonant sensor are anticipated as being in physical contact with the chest of an infant. It is anticipated that the first resonant sensor detects respiration and/or movement of the infant, while the second resonant sensor detects heart rate or pulse. Such redundancy will allow for prevention of "false" alarming should the infant move during sleep in a manner that prevents adequate communication with the sensors. A signal processor

compares the respiration related signal pattern to a stored pattern, and monitors the heart rate or pulse as compared with an initial baseline measurement. A comparator circuit determines if either of the measured characteristic fall below an alarm point, and generate an alarm output impulse that communicates with the conventional radio frequency transmitter, forming an synthesized signal that communicating with an antenna and results in an alarm or annunciation signal of a predetermined frequency for audible transmission through the speaker of the receiver. In this manner, both normal, monitoring sounds as well as the incidental alarm annunciator can be transmitted via the same transmitter/receiver combination.

ISSUES

The art the examiner has relied upon as the basis for various rejections include:

1. O'Dwyer, U.S. Patent No. 5,928,157, disclosing an apnea detection device with a remote monitoring capability;
2. Teodorescu et al., U.S. Patent No. 6,011,477, disclosing an apparatus and a method for monitoring the respiration and/or movements of a subject without requiring a physical attachment to the monitored subject; and
3. Tao, U.S. Patent No. 4,862,144 disclosing a movement monitor suitable for monitoring a human's or other living organism's breathing movement.

In the Final Rejection of June 14, 2001, the Examiner rejected claims 1, 2, and 4 under 35 U.S.C. 103(a) as being unpatentable over O'Dwyer, U.S. Patent No.

5,928,157.

The Examiner further rejected claims 3, and 6-11 under 35 U.S.C. 103(a) as being unpatentable over O'Dwyer, U.S. Patent No. 5,928,157 in view of Teodorescu et al., U.S. Patent No. 6,011,477.

Finally, the Examiner rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over O'Dwyer, U.S. Patent No. 5,928,157 in view of Tao, U.S. Patent No. 4,862,144.

GROUPING OF CLAIMS

Claims 1-11 form a single group of claims.

ARGUMENT

Rejections under 35 U.S.C. 103(a)

In the Final Rejection of June 14, 2001, the Examiner respectfully rejected claims 1, 2, and 4 under 35 U.S.C. 103(a) as being unpatentable over O'Dwyer, U.S. Patent No. 5,928,157.

O'Dwyer teaches an apnea detection device with a remote monitoring capability. However, unlike the present invention, O'Dwyer fails to teach a *pliable* chest strap of a *soft* and *formable* material being easily wrapable about the chest of an infant. In contrast, O'Dwyer teaches a stiff strap.

In addition, O'Dwyer fails to teach a first resonant sensor for detecting respiration and movement of the infant and a second resonant sensor spaced laterally apart from

the first resonant sensor for detecting heart rate pulse.

Furthermore, O'Dwyer fails to teach a receiver comprising a lighting means.

In light of the numerous aforementioned differences between O'Dwyer and the claimed invention, the examiner's rejection of claims 1, 2, and 4 under 35 U.S.C. 103(a) is inappropriate.

The Examiner respectfully rejected claims 3, and 6-11 under 35 U.S.C. 103(a) as being unpatentable over O'Dwyer, U.S. Patent No. 5,928,157 in view of Teodorescu et al., U.S. Patent No. 6,011,477.

The differences with respect to O'Dwyer have been stated above. Teodorescu et al. teaches an apparatus and a method for monitoring the respiration and/or movements of a subject without requiring a physical attachment to the monitored subject.

However, unlike the present invention, Teodorescu et al. fails to teach a second resonant sensor which detects heart rate or pulse. In contrast, Teodorescu et al. teaches a second sensor which detects the presence and/or movement of an external proximal object, such as a person or an animal.

In addition, like O'Dwyer, Teodorescu et al. fails to teach a receiver comprising a lighting means.

Therefore, based on the aforementioned differences between O'Dwyer, Teodorescu et al., and the claimed invention, the Examiner's rejection of claims 3, and 6-11 under 35 U.S.C. 103(a) is inappropriate.

The Examiner respectfully further rejected claim 5 under 35 U.S.C. 103(a) as

being unpatentable over O'Dwyer, U.S. Patent No. 5,928,157 in view of Tao, U.S. Patent No. 4,862,144.

Tao teaches a movement monitor with a visual and audible alarm suitable for monitoring a human's or other living organism's breathing movement.

However, the visual alarm taught by Tao can be differentiated with the lighting means taught by the present invention. The lighting means taught by the present invention is defined as an incandescent illumination panel which functions as a night-light, thereby illuminating continuously during infant sleeping periods. Tao, rather, teaches a visual alarm designed to illuminate upon cessation of movement.

Based upon the above arguments, it is felt that the differences between the present invention and all of these references are such that rejection based upon 35 U.S.C. 103, in addition to any other art, relevant or not, is also inappropriate. However, by way of additional argument application wishes to point out that it is well established at law that for a proper *prima facie* rejection of a claimed invention based upon obviousness under 35 U.S.C. 103, the cited references must teach every element of the claimed invention. Further, if a combination is cited in support of a rejection, there must be some affirmative teaching in the prior art to make the proposed combination. See Orthopedic Equipment Company, Inc. et al. v. United States, 217 USPQ 193, 199 (Fed. Cir. 1983), wherein the Federal Circuit decreed, "Monday Morning Quarter Backing is quite improper when resolving the question of obviousness." Also, when determining the scope of teaching of a prior art reference, the Federal Circuit has declared:

"[t]he mere fact that the prior art could be so modified should not have made the modification obvious unless the prior art suggested the desirability of the modification." (Emphasis added). In re

Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

There is no suggestion as to the desirability of any modification of the references to describe the present invention. An analysis of the disclosures within the cited references fails to cite every element of the claimed invention. When the prior art references require a selective combination to render obvious a subsequent claimed invention, there must be some reason for the selected combination other than the hindsight obtained from the claimed invention itself. Interconnect Planning Corp v. Feil, 774 F.2d 1132, 227 USPQ 543 (CAFC 1985). There is nothing in the prior art or the Examiners arguments that would suggest the desirability or obviousness of making a combination breathing monitor alarm and audio baby alarm according to the present invention. Uniroyal, Inc. v. Rudkki-Wiley Corp., 837 F.2d 1044, 5 USPQ 2d 1432 (CAFC 1988). The Examiner seems to suggest that it would be obvious for one of ordinary skill to attempt to produce the currently disclosed invention. However, there must be a reason or suggestion in the art for selecting the design, other than the knowledge learned from the present disclosure. In re Dow Chemical Co., 837 F.2d 469, 5 USPQ.2d 1529 (CAFC 1988); see also In re O'Farrell, 853 F.2d 894, 7 USPQ 2d 1673 (CAFC 1988).

The Court of Appeals for the Federal Circuit (CAFC) in its opinion in In re Fine, 837 F.2d. 1071,1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988), (later upheld in In re Dance, 160 F.3d. 1339, 48 USPQ 2d. 1635 (Fed. Cir. 1998), sets forth the test of how the disclosure or teaching of references should be applied under 35 USC §103:

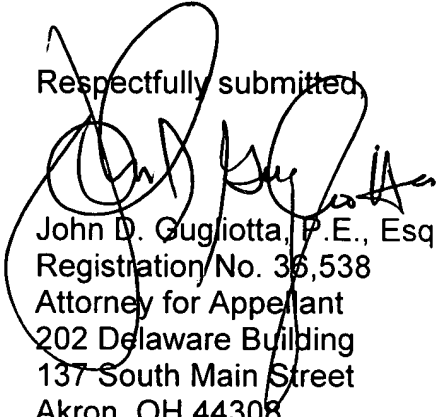
Obviousness is tested by "what the combined teachings of the references would have suggested to those of ordinary skill in the art." In

re Keller, 642 F.2d. 413, 425, 208 USPQ 871, 881 (CCPA 1981). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." ACS Hosp. Sys., 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined only if there is some suggestion or incentive to do so". Id., Here, the prior art contains none. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

To summarize, it appears that only in hindsight does it appear obvious to one of ordinary skill in the pertinent art to combine the present claimed and disclosed combination of elements. To reject the present application as a combination of old elements leads to an improper analysis of the claimed invention by its parts, and instead of by its whole as required by statute. Custom Accessories Inc. v. Jeffery-Allan Industries, Inc., 807 F.2d 955, 1 USPQ 2d 1197 (CAFC 1986); In re Wright, 848 F.2d 1216, 6 USPQ 2d 1959 (CAFC 1988).

Accordingly, the reversal of the Examiner by the honorable Board of Appeals is respectfully solicited.

Respectfully submitted,



John D. Gugliotta, P.E., Esq.
Registration No. 36,538
Attorney for Appellant
202 Delaware Building
137 South Main Street
Akron, OH 44308
(330) 253-5678
Facsimile (330) 253-6658

APPENDIX

THE CLAIMS ON APPEAL

The claims on appeal are as follows:

1. A combination breathing monitor alarm and audio baby alarm comprising:
an attachable transmitter forming a main body of a linearly elongated, pliable chest strap of a soft and formable material that is easily wrapable about the chest of an infant; and
a receiver housing receiver control circuitry for receiving signals transmitted by said transmitter.
2. The combination of Claim 1, wherein said transmitter further comprises a hook and loop fastener means to allow for the chest strap to be connected in a manner circumscribing the wearers chest.
3. The combination of Claim 1, wherein said chest strap 16 has a flat, smooth inner surface supporting a first resonant sensor spaced laterally apart from a second resonant sensor and a microphone housed with said chest strap which communicates with transmitter control circuitry housed therein.
4. The combination of Claim 1, wherein said receiver is in wireless radio communication with said transmitter.

5. The combination of Claim 1, wherein said receiver comprises a lighting means.
6. The combination of Claim 3, wherein said transmitter control circuitry has a transmitter control central processing unit including a conventional radio frequency transmitter communicating with an antenna and controlled by an analog to digital microphone amplification circuit in communication with a microphone.
7. The combination of Claim 1, wherein said receiver control circuitry comprises a receiver control central processing unit including a conventional radio frequency receiver communicating with an antenna and controlled by a digital to analog speaker amplification circuit in communication with a speaker.
8. The combination of Claim 6, wherein said transmitter further incorporates a respiration monitor for monitoring the respiration of the user as well as interacting with the transmitter control circuitry for transmitting a respiration alarm signal.
9. The combination of Claim 8, wherein said respiration monitor comprises a first resonant sensor for detecting respiration and movement of the infant a second resonant sensor for detecting heart rate and pulse.
10. The combination of Claim 9, wherein said respiration monitor further comprises a signal processor that compares the respiration related signal pattern to a stored pattern, and monitors the heart rate or pulse as compared with an initial baseline measurement.

11. The combination of Claim 10, wherein said respiration monitor comprises a comparitor circuit that determines if either of the measured characteristic fall below an alarm point, and generate an alarm output impulse that communicates with the radio frequency transmitter, forming an synthesized signal that communicating with an antenna and results in an alarm or annunciation signal of a predetermined frequency for audible transmission through said speaker of said receiver.